Curriculum Vitae: Yi Zhou

chouti@pku.edu.cn, Homepage

Education

Peking University,   **Beijing, China**
B.S. in Electronic Information Engineering, School of EECS   2019–2023 (excepted)
Coursework: Algorithms/Data Structures, Digital Communication, Computer Networks/Internet of Things, Stochastic Process, etc.
Activities: Served as Chair of Peking University Student Algorithm Association
  – Association's activities include contest organizing, problem setting, mock exam and tutoring   2021

Research Experience

Peking University, *Advised by Prof. Tong Yang*   Jun 2020 - Jun 2022
  – Research Interests: Computer Networks, Data Stream Algorithms and etc.
Efficient Computing Lab, Yale University, *Advised by Prof. Lin Zhong*   Mar 2022 – Now
  – Research Project: Enabling dynamic linking without virtual memory for Rust embedded operating systems.
Peking University, *Senior thesis advisor Prof. Xin Jin*   Oct. 2022 - Jun. 2023
  – Research Project: Dynamic load balancing for serverless computing.

Publications

[1] Yikai Zhao, Zheng Zhong* (*co-first author), Yuanpeng Li, **Yi Zhou**, Yifan Zhu, Li Chen, Yi Wang, Tong Yang, Cluster-Reduce: Compressing Sketches for Distributed Data Streams,   **KDD'21**, [PDF]

[2] Yikai Zhao, Yinda Zhang*, Yuanpeng Li*, **Yi Zhou**, Chen Chunhui, Tong Yang, Bin Cui, *MinMax Sampling: A Near-optimal Global Summary for Aggregation in the Wide Area*,   **SIGMOD'22**, [PDF]

[3] Zhuochen Fan, Yubo Zhang, Siyuan Dong, **Yi Zhou**, Fangyi Liu, Tong Yang, Steve Uhlig, Bin Cui, *HoppingSketch: More Accurate Temporal Membership Query and Frequency Query*,   **TKDE'22**

[4] Yuhan Wu, Siyuan Dong, **Yi Zhou**, Yikai Zhao, Fangcheng Fu, Tong Yang, Chaoyue Niu, Fan Wu, Bin Cui *KVSAgg: Secure Aggregation of Distributed Key-Value Sets*
                                              ICDE'23, Minor Revision and Resubmit

Projects

[1] A Bot for Chinese Standard Mahjong, [code] : Course project for Practice of Programming in C/C++. A pure C++ heuristic search program for mahjong decision making. Ranked 7th in the final tournament in more than 100 groups.   June, 2020

[2] Cortex-Dynlink [code] A dynamic linker for Rust on ARM Cortex-M MCU: It provides dynamic linking support for Rust projects on ARM MCU. All parts are implemented in Rust from scratch. This project also includes ongoing modifications on llvm-project.   August, 2022

Awards

Gold Medal(Third Place in 500+ teams) in 2020 International Collegiate Programming Contest (ICPC) Asia Yinchuan Regional Contest.   ICPC foundation, May, 2021
Gold Medal in 2020 ICPC Asia Nanjing Regional Contest,   ICPC foundation, Dec, 2020
Gold Award in 2020 China Collegiate Programming Contest, Mianyang Site.   Committee for CCPC, Nov, 2020
Third Award in National Olympiad in Informatics, China   Jul, 2018
Second Award in Asia-Pacific Informatics Olympiad, APIO,   May, 2018

Skills & Experiences

Teaching Experiences:
    Teaching Assistant, Introduction to Computing (B), Yibo Lin   [2022 Fall]

Coding:

- Active participation in Competitive Programming events including Codeforces(rating max. grandmaster, 2413 and ICPC/CCPC onsite. Extensive programming experience, solid expertise on C, C++, Rust, a good command of Python, Verilog, Rust and Kotlin.
- Several experiences in implementation based on existing open-source projects.